AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (Previously Presented) A drill head for preparing the bone of two opposing vertebral bodies to accept a predetermined shape of an endoprosthesis comprising:

a form cutter having a profile capable of imparting a shape to the bone of vertebral bodies which mates with the predetermined endoprosthesis surface shape;

drive means for providing a driving force to the form cutter, and

means for housing the form cutter and the drive means,

wherein the profile of the form cutter is of a height capable of being admitted into the space between two opposing vertebral bodies.

2. (Previously Presented) The drill head of Claim 1 wherein the form cutter has a convex shape.

3. (Previously Presented) The drill head of Claim 2 wherein the form cutter is provided with a beveled gearing surface.

4. (Previously Withdrawn)

5. (Previously Presented) The drill head of Claim 1 wherein the drive means comprises a drive shaft operatively coupling the form cutter to a drive source.

6. (Previously Presented) The drill head of Claim 5 wherein a distal end of the drive shaft is provided with a pinion gear which cooperates with the form cutter to impart a rotary motion to the form cutter.

7. (Previously Presented) The drill head of Claim 5 wherein a proximal end of the drive shaft is provided with a coupling means for coupling the drive shaft to the drive source.

8. (Previously Withdrawn)

8. (Previously Withdrawn)

9. (Previously Withdrawn)

10. (Previously Withdrawn)

11. (Previously Withdrawn)

12. (Previously Withdrawn)

13. (Previously Presented) The drill head of Claim 1 wherein the housing is provided with attachment means for attaching the drill head to a drive source.

14. (Previously Presented) The drill head of Claim 1 wherein the maximum height of the profile of the form cutter is approximately nine millimeters.

15. (Previously Presented) A drill head for preparing the bone of two opposing vertebral bodies to accept the concaval-convex shape of an endoprosthesis comprising:

a form cutter having a support shaft capable of imparting a concave shape to the bone of vertebral bodies;

drive means for providing a driving force to the form cutter, the drive means including a drive shaft; and

means for housing the form cutter and the drive means,

wherein the angle between the support shaft of the form cutter and the drive shaft is approximately 96°.

16. (Previously Presented) The drill head of Claim 15 wherein the form cutter has a predetermined profile.

17. (Previously Presented) The drill head of Claim 16 wherein the maximum height of the profile of the form cutter is approximately nine millimeters.

18. (Previously Presented) A milling apparatus for preparing surfaces of two opposing vertebral bodies to accept a predetermined shape of an endoprosthesis comprising:

a rotary form cutter having a profile matching the predetermined shape of the endoprosthesis, the rotary form cutter rotatable about a rotation axis;

a drive having proximal and distal ends, the drive operatively coupled to the rotary form cutter at the distal end to provide a force for rotating the rotary form cutter; and

an elongate housing containing the rotary form cutter and the drive, the elongate housing having a longitudinal axis in the elongate direction;

wherein the rotary form cutter cuts an imparted shape into the surfaces of the vertebral bodies that matches the predetermined shape of the endoprosthesis by rotation of the rotary form cutter.

19. (Previously Presented) The milling apparatus according to claim 18, wherein the profile of the rotary form cutter contained within the housing is configured to fit into a space between the two opposing vertebral bodies.

20. (Previously Presented) The milling apparatus according to claim 19, wherein the profile of the rotary form cutter contained within the housing is not more than approximately nine millimeters in height.

21. (Previously Presented) The milling apparatus according to claim 18, wherein the rotation axis of the rotary form cutter is transverse to the longitudinal axis of the elongate housing.

22. (Previously Presented) The milling apparatus according to claim 21, wherein the angle between the rotation axis and the longitudinal axis is approximately 96 degrees.

23. (Previously Presented) The milling apparatus according to claim 18, wherein the rotary form cutter is provided with a gear surface and the drive is provided with a gear at the distal end, and wherein the drive is coupled to the rotary form cutter by intermeshing the gear surface with the gear.

24. (Previously Presented) The milling apparatus according to claim 18, wherein the predetermined shape is a concaval-convex shape.

25. (Previously Presented) A device for preparing a space in a human spine to receive an insert between adjacent vertebral bodies, said device comprising:

an elongated shaft portion;

a housing disposed at the distal end of said elongated shaft portion;

a drive means;

a drive source operably connected to said drive means; and

a form cutter mountable on said housing and movable by said drive means, wherein:

said form cutter has at least one milling surface selected to create a surface contour in one of the adjacent vertebral bodies as said form cutter is moved by said drive means.

26. (Previously Presented) The device of claim 25, wherein said housing is fixedly connected to said elongated shaft portion.

27. (Previously Presented) The device of claim 25, wherein:

said housing includes a shaft support; and

said form cutter includes a form cutter shaft configured to fit within said shaft support of said housing.

28. (Previously Presented) The device of claim 25, wherein said at least one milling surface is configured such that it is operated in a plane generally parallel to the surface contour formed in one of the adjacent vertebral bodies as said form cutter is moved by said drive means.

29. (Previously Presented) The device of claim 25, wherein said housing includes:

an upstanding wall;

a shaft support; and

a slot configured through said upstanding wall through which said drive means is operatively coupled to said form cutter.

30. (Previously Presented) The device of claim 25 including drive means that operatively couples said form cutter to said drive source.

31. (Previously Presented) The device of claim 30, wherein:

the drive means comprises a drive shaft having a proximal end and a distal end;

said drive shaft is adapted to be received in said elongated shaft portion;

the distal end of said drive shaft is operatively coupled to said form cutter to move said form cutter; and

the proximal end of said drive shaft is operatively coupled to said drive source.

32. (Previously Presented) The device of claim 25, wherein said drive means is disposed at least in part in said elongated shaft portion.

33. (Previously Presented) The device of claim 25, wherein:

the device includes a drive shaft disposed within said elongated shaft portion;

said drive shaft is rotatably driven by said drive source;

said drive shaft has a gear at its distal end; and

said gear is configured to mate with corresponding teeth on said form cutter.

34. (Previously Presented) The device of claim 33, wherein:

said form cutter includes at least one top milling surface and a bottom surface;

said bottom surface is provided with a beveled gearing surface;

said beveled gearing surface engages teeth on said gear; and

said gear and said beveled gearing surface cooperate to rotate said form cutter as said drive shaft is rotatably driven.

35. (Previously Presented) The device of claim 25, wherein said form cutter is driven in rotary motion by said drive means.

36. (Previously Presented) The device of claim 25, wherein said form cutter comprises at least two milling surfaces for simultaneously creating at least two predetermined surface contours on an end plate of one of the adjacent vertebral bodies.

37. (Previously Presented) The device of claim 25, wherein:

said housing includes a smooth surface formed on a side of said housing opposite said milling surface; and

said smooth surface is configured to allow a surgeon to increase the pressure of said milling surface against the one of the adjacent vertebral bodies.

38. (Previously Presented) The device of claim 25, wherein said form cutter includes a leading edge configured as a bone cutting surface.

39. (Previously Presented) The device of claim 36, wherein at least one of said at least two milling surfaces of said form is convex.

40. (Previously Presented) The device of claim 36, wherein at least one of said at least two milling surfaces of said form cutter is tapered outwardly from a front surface of said form cutter.

41. (Previously Presented) A form cutter for preparing a space between adjacent vertebral bodies to receive an insert, said form cutter having:

at least one milling surface and being mountable on a device capable of moving said form cutter to cause said at least one milling surface to create at least one surface having a predetermined contour in an end plate of at least one of the adjacent vertebral bodies,

said at least one milling surface having a width selected to substantially match the overall width of the insert to be received between the adjacent vertebral bodies,

said at least one milling surface being configured and oriented such that it is generally parallel to the surface having a predetermined contour created in the end plate of the adjacent vertebral body when in use.

42. (Previously Presented) The form cutter of claim 41, wherein said form cutter has a top surface and a bottom surface.

43. (Previously Presented) The form cutter of claim 42, wherein at least one of said top surface and said bottom surface is a milling surface.

44. (Previously Presented) The form cutter of claim 41, wherein said form cutter has a leading edge configured to cut into the vertebral body as said form cutter is inserted into the spine.

45. (Previously Presented) The form cutter of claim 42, wherein at least one of said top surface and said bottom surface of said form cutter comprises a convex surface.

46. (Previously Presented) The form cutter of claim 42, wherein at least one area of said top surface and said bottom surface of said form cutter is tapered outwardly from the front surface of said form cutter.

47. (Previously Presented) A device for preparing a space in a human spine across a disc space and into the end plates of adjacent vertebral bodies to receive an interbody spinal insert, said device comprising:

an elongated shaft portion;

a housing disposed at the distal end of said elongated shaft portion;

a drive means;

a drive source for powering said drive means;

a form cutter mountable on said housing; and

a coupling means for connecting and imparting motion from said drive means to said form cutter,

wherein:

said form cutter has at least one broad milling surface selected to remove bone from and create a predetermined surface contour in at least one of the end plates of the adjacent vertebral bodies as said form cutter is moved by said drive means; and

said milling surface is configured to substantially match in width and contour a surface of the interbody spinal insert and the predetermined surface contour in at least one of the end plates of the adjacent vertebral bodies.

48. (Previously Presented) The device of claim 47, wherein:

said drive means moves said form cutter in a plane generally parallel to the predetermined surface contour to be formed in at least one of the end plates of the adjacent vertebral bodies; and

the movement of said form cutter is rotary.

49. (Previously Presented) A device for preparing a space to receive an interbody insert within and between the adjacent surfaces of vertebral bodies disposed adjacent a disc space, said device comprising:

an elongated shaft containing at least a portion of a drive means;

a housing positioned at the distal end of said elongated shaft portion; and

a form cutter disposed on said housing and operably connected to said drive means to be driven thereby,

wherein:

said form cutter has a milling surface;

said milling surface has a width substantially the same as the width of the insert to be implanted;

said milling surface has a configuration adapted to remove bone from the vertebral bodies to prepare the vertebral bodies to receive the insert; and

said milling surface of said form cutter is configured to be generally parallel to a receiving surface that is formed on one of the vertebral bodies by said device.

50. (Previously Presented) The device of claim 49, wherein said form cutter includes first and second outwardly facing milling surfaces.

51. (Previously Canceled)

52. (Previously Presented) The device of claim 49, wherein said form cutter has at least one milling surface having a convex configuration.

53. (Previously Presented) The device of claim 49, wherein:

said form cutter includes outwardly facing first and second milling surfaces; and

said outwardly facing first and second milling surfaces are inclined relative to one another.

54. (Previously Presented) The device of claim 50, wherein said outwardly facing first and second milling surfaces are inclined with respect to each other.

55. (Previously Presented) The device of claim 49, wherein said drive means is adapted to produce a rotary movement of said form cutter about an axis generally perpendicular to a longitudinal axis of said elongated shaft portion and a general plane of the vertebral end plate.

56. (Previously Presented) The device of claim 49, wherein said drive means is powered by a drive source.

57. (Previously Presented) The device of claim 49, wherein said housing has a surface opposite said milling surface of said form cutter for bearing against the vertebral body on the opposite side of the disc space.

58. (Previously Presented) The device of claim 57, wherein said bearing surface is smooth.

59. (Previously Presented) The device of claim 49, wherein said device is sterilizable for use in surgery.

60. (Previously Presented) The device of claim 49, wherein said form cutter is detachable from said housing.

61. (Previously Presented) The device of claim 49, including a rotatable drive shaft disposed within said elongated shaft portion, said rotatable drive shaft being operably connected to said drive means and to said form cutter.

62. (Previously Presented) A method for preparing the disc space between adjacent vertebrae of a human spine to receive an insert therebetween, said method being performed with a device having a movable form cutter with a milling surface that has a width substantially the same as the width of the insert to be implanted between the adjacent vertebrae, said method comprising the steps of:

activating the device to cause the milling surface to move;

inserting the milling surface into the space between the adjacent vertebrae;

contacting the milling surface of the form cutter against at least one of the adjacent vertebrae to remove bone from the end plate of the vertebra that lies adjacent the disc space to form a surface of that vertebra, the surface of that vertebra having a contour that substantially matches the contour of a surface of the insert to be implanted and that substantially matches the contour of the milling surface; and

moving the milling surface of the form cutter in a rotary fashion relative to said device in a plane generally parallel to the surface contour to be formed in at least one of the adjacent vertebral bodies.

63. (Previously Presented) The method of claim 62, wherein the form cutter includes first and second outwardly facing milling surfaces.

64. (Previously Presented) The method of claim 63, wherein the device is not activated until after the milling surface has been inserted into the space between the adjacent vertebrae.

65. (Previously Presented) The method of claim 62, including the steps of:

measuring the width of the desired space to be formed between the adjacent vertebrae; and

selecting a form cutter and corresponding milling surface that matches the measured width.

66. (Previously Presented) The method of claim 63, including the further steps of:

removing the milling surface from the disc space after completing the contacting step; and then

positioning an insert into the space created between the adjacent vertebrae.

67. (Previously Presented) A device for preparing a space in the human spine to receive an insert between adjacent vertebral bodies, said device comprising:

an elongated shaft portion;

a housing disposed at the distal end of said elongated shaft portion;

a drive means;

a drive source operably connected to said drive means;

a form cutter mountable on said housing and movable by said drive means;

said form cutter having at least one milling surface selected to create a predetermined surface contour in one of the adjacent vertebral bodies as said form cutter is moved by said drive means;

said drive means including a drive shaft disposed within said elongated shaft portion;

said drive shaft being rotatably driven by said drive means; and

said drive shaft being operably coupled to said form cutter.

68. (Previously Presented) The device of claim 67, wherein

said form cutter includes first and second milling surfaces;

said drive shaft has a gear at its distal end

said gear is configured to engage corresponding teeth on said form cutter;

said gear and said teeth are configured such that said form cutter having said first and second milling surfaces is rotated as said drive shaft is rotated by said drive means.

69. (Previously Presented) The device of claim 67, wherein said housing is fixedly connected to said elongated shaft portion.

70. (Previously Presented) The device of claim 67, wherein:

said housing includes a shaft support; and

said form cutter includes a form cutter shaft configured to fit within said shaft support of said housing.

71. (Previously Presented) The device of claim 67, wherein said at least one milling surface is configured such that it is operated in a plane generally parallel to the surface contour formed in one of the adjacent vertebral bodies as said form cutter is moved by said drive means.

72. (Previously Presented) The device of claim 67, wherein said housing includes:

an upstanding wall;

a shaft support; and

a slot configured through said upstanding wall through which said drive means is operatively coupled to said form cutter.

73. (Previously Presented) The device of claim 67 including drive means that operatively couples said form cutter to said drive source.

74. (Previously Presented) The device of claim 73, wherein:

said drive means comprises a drive shaft having a proximal end and a distal end;

said drive shaft is adapted to be received in said elongated shaft portion;

the distal end of said drive shaft is operatively coupled to said form cutter to move said form cutter, and

the proximal end of said drive shaft is operatively coupled to said drive source.

75. (Previously Presented) The device of claim 67, wherein said drive means is disposed at least in part in said elongated shaft portion.

76. (Previously Presented) The device of claim 67, wherein said form cutter is driven in rotary motion by said drive means.

77. (Previously Presented) The device of claim 67, wherein said form cutter comprises at least two milling surfaces for simultaneously creating at least two predetermined surface contours on an end plate of one of the adjacent vertebral bodies.

78. (Previously Presented) The device of claim 67, wherein:

said housing includes a smooth surface formed on a side of said housing opposite said milling surface; and

said smooth surface is configured to allow a surgeon to increase the pressure of said milling surface against the one of the adjacent vertebral bodies.

79. (Previously Presented) The device of claim 67, wherein said form cutter includes a leading edge configured as a bone cutting surface.

80. (Previously Presented) The device of claim 68, wherein at least one of said at least two milling surfaces of said form is convex.

81. (Previously Presented) The device of claim 68, wherein at least one of said at least two milling surfaces of said form cutter is tapered outwardly from a front surface of said form cutter.

82. (Previously Presented) A device for preparing a space in a human spine to receive an insert between adjacent vertebral bodies, said device comprising:

an elongated shaft portion;

a housing disposed at the distal end of said elongated shaft portion;

a drive means;

a drive source operably connected to said drive means;

a form cutter mountable on said housing and movable by said drive means, wherein:

said form cutter has at least one milling surface selected to create a predetermined surface contour in one of the adjacent vertebral bodies as said form cutter is moved by said drive means; and

said housing has a smooth surface formed on a side of said housing opposite said milling surface.

83. (Previously Presented) The device of claim 82, wherein said housing is fixedly connected to said elongated shaft portion.

84. (Previously Presented) The device of claim 82, wherein:

said housing includes a shaft support; and

said form cutter includes a form cutter shaft configured to fit within said shaft support of said housing.

85. (Previously Presented) The device of claim 82, wherein said at least one milling surface is configured such that it is operated in a plane generally parallel to the surface contour formed in one of the adjacent vertebral bodies as said form cutter is moved by said drive means.

86. (Previously Presented) The device of claim 82, wherein said housing includes:

an upstanding wall;

a shaft support; and

a slot configured through said upstanding wall through which said drive means is operatively coupled to said form cutter.

87. (Previously Presented) The device of claim 82 including drive means that operatively couples said form cutter to said drive source.

88. (Previously Presented) The device of claim 87, wherein:

said drive means comprises a drive shaft having a proximal end and a distal end;

said drive shaft is adapted to be received in said elongated shaft portion;

the distal end of said drive shaft is operatively coupled to said form cutter to move said form cutter; and

the proximal end of said drive shaft is operatively coupled to said drive source.

89. (Previously Presented) The device of claim 82, wherein said drive means is disposed at least in part in said elongated shaft portion.

90. (Previously Presented) The device of claim 82, wherein:

the device includes a drive shaft disposed within said elongated shaft portion;

said drive shaft is rotatably driven by said drive source;

said drive shaft has a gear at its distal end; and

said gear is configured to mate with corresponding teeth on said form cutter.

91. (Previously Presented) The device of claim 90, wherein:

said form cutter has at least one top milling surface and a bottom surface;

said bottom surface is provided with a beveled gearing surface;

said beveled gearing surface engages teeth on said gear; and

said gear and said beveled gearing surface cooperate to rotate said form cutter as said drive shaft is rotatably driven by said drive means.

92. (Previously Presented) The device of claim 82, wherein said form cutter is driven in rotary motion by said drive means.

93. (Previously Presented) The device of claim 82, wherein said form cutter comprises at least two milling surfaces for simultaneously creating at least two predetermined surface contours on an end plate of one of the adjacent vertebral bodies.

94. (Previously Presented) The device of claim 93, wherein said form cutter includes a leading edge configured as a bone cutting surface.

95. (Previously Presented) The device of claim 93, wherein at least one of said at least two milling surfaces of said form is convex.

96. (Previously Presented) The device of claim 93, wherein at least one of said at least two milling surfaces of said form cutter is tapered outwardly from a front surface of said form cutter.

97. (Previously Presented) A device for preparing a space in a human spine to receive an insert between adjacent vertebral bodies, said device comprising:

an elongated shaft portion;

a housing disposed at the distal end of said elongated shaft portion;

a drive means;

a drive source operably connected to said drive means; and

a form cutter mountable on said housing and movable by said drive means, wherein:

said form cutter has at least one milling surface selected to create a predetermined surface contour in one of the adjacent vertebral bodies as said form cutter is moved by said drive means.

98. (Previously Presented) The device of claim 97, wherein said form cutter has at least two milling surfaces.

99. (Previously Presented) The device of claim 98, wherein said form cutter includes a leading edge configured as a bone cutting surface.

100. (Previously Presented) The device of claim 97, wherein said housing is fixedly connected to said elongated shaft portion.

101. (Previously Presented) The device of claim 97, wherein:

said housing includes a shaft support; and

said form cutter includes a form cutter shaft configured to fit within said shaft support of said housing.

102. (Previously Presented) The device of claim 97, wherein said at least one milling surface is configured such that it is operated in a plane generally parallel to the surface contour formed in one of the adjacent vertebral bodies as said form cutter is moved by said drive means.

103. (Previously Presented) The device of claim 97, wherein said housing includes:

an upstanding wall;

a shaft support; and

a slot configured through said upstanding wall through which said drive means is operatively coupled to said form cutter.

104. (Previously Presented) The device of claim 97 including drive means that operatively couples said form cutter to said drive source.

105. (Previously Presented) The device of claim 104, wherein:

said drive means comprises a drive shaft having a proximal end and a distal end;

said drive shaft is adapted to be received in said elongated shaft portion;

the distal end of said drive shaft is operatively coupled to said form cutter to move said form cutter; and

the proximal end of said drive shaft is operatively coupled to said drive source.

106. (Previously Presented) The device of claim 97, wherein said drive means is disposed at least in part in said elongated shaft portion.

107. (Previously Presented) The device of claim 97, wherein:

the device includes a drive shaft disposed within said elongated shaft portion;

said drive shaft is rotatably driven by said drive source;

said drive shaft has a gear at its distal end; and

said gear is configured to mate with corresponding teeth on said form cutter.

108. (Previously Presented) The device of claim 107, wherein:

said form cutter has at least one top face having first and second milling surfaces and a bottom surface;

said bottom surface is provided with a beveled gearing surface;

said beveled gearing surface engages teeth on said gear; and

said gear and said beveled gearing surface cooperate to rotate said form cutter as said drive shaft is rotatably driven by said drive means.

109. (Previously Presented) The device of claim 97, wherein said form cutter is driven in rotary motion by said drive means.

110. (Previously Presented) The device of claim 97, wherein said form cutter comprises at least two milling surfaces for simultaneously creating at least two predetermined surface contours on an end plate of one of the adjacent vertebral bodies.

111. (Previously Presented) The device of claim 97, wherein said housing includes a smooth surface formed on a side of said housing opposite said milling surface, said smooth surface being configured to allow a surgeon to increase the pressure of said milling surface against the one of the adjacent vertebral bodies.

112. (Previously Presented) The device of claim 97, wherein at least one of said at least two milling surfaces of said form is convex.

113. (Previously Presented) The device of claim 97, wherein at least one of said at least two milling surfaces of said form cutter is tapered outwardly from a front surface of said form cutter.

114. (Previously Presented) A form cutter for preparing a space between adjacent vertebral bodies to receive an insert, said form cutter having:

at least one milling surface and being mountable on a device capable of moving said form cutter to cause said at least one milling surface to create at least one surface having a predetermined contour in an end plate of at least one of the adjacent vertebral bodies;

said at least one milling surface having a width selected to substantially match the overall width of the insert to be received between the adjacent vertebral bodies;

said at least one milling surface having a perimeter that is at least in part arcuate; and

said form cutter having a leading edge configured to cut into the vertebral body as said form cutter is inserted into the spine.

115. (Previously Presented) The form cutter of claim 114, wherein said form cutter has a top surface and a bottom surface.

116. (Previously Presented) The form cutter of claim 115, wherein at least one of said top surface and said bottom surface comprises at least one milling surface.

117. (Previously Presented) The form cutter of claim 115, wherein at least one of said top surface and said bottom surface of said form cutter comprises at least one milling surface that is convex.

118. (Previously Presented) The form cutter of claim 115, wherein at least one of said top surface and said bottom surface of said form cutter comprises at least one milling surface that is tapered outwardly from the front surface of said form cutter.

119. (Previously Presented) The form cutter of claim 114, said at least one milling surface being configured and oriented such that it is generally parallel to the surface having a predetermined contour created in the end plate of the at least one of the adjacent vertebral bodies when in use.

120. (Previously Presented) A device for preparing a space in a human spine across a disc space and into the end plates of adjacent vertebral bodies to receive an interbody spinal insert, comprising:

an elongated shaft portion;

a housing disposed at the distal end of said elongated shaft portion;

a drive means;

a drive source operably connected to said drive means;

a form cutter mountable on said housing and movable by said drive means;

drive means that operatively couples said form cutter to said drive source to move said form cutter;

said form cutter having a broad milling surface selected to remove bone from and create a predetermined surface contour in at least one of the end plates of the adjacent vertebral bodies as said form cutter is moved by said drive means in a plane generally parallel to the predetermined surface contour to be formed in said vertebral body;

said form cutter being driven in rotary motion by said drive means; and

said milling surface being configured to substantially match in width and contour a surface of said interbody spinal insert.

121. (Previously Presented) A form cutter for preparing a space between adjacent vertebral bodies to receive an insert, said form cutter having:

at least one top milling surface for removing bone;

a bottom surface opposite said at least one top milling surface adapted to mount on a device capable of moving said form cutter;

said at least one top milling surface of said moving form cutter being capable of removing bone from an end plate of at least one of said adjacent vertebral bodies to create at least one surface in said end plate having a predetermined contour;

said at least one top milling surface having a width selected to substantially match the overall width of said insert to be received between said adjacent vertebral bodies; and

said form cutter having a leading edge configured to cut into the vertebral body as said form cutter is inserted into the spine.

122. (Previously Presented) The form cutter of claim 121, wherein said top surface of said form cutter is capable of milling bone.

123. (Previously Presented) The form cutter of claim 121, wherein at least one milling surface provided on said top surface of said form cutter is convex.

124. (Previously Presented) The form cutter of claim 121, wherein at least one milling surface provided on said top surface of said form cutter is tapered outwardly from the front surface of said form cutter.

125. (Previously Presented) The form cutter of claim 121, wherein said at least one milling surface is configured and oriented such that it is generally parallel to the surface formed in said end plate of said vertebral body when in use.

126. (Newly Added) An apparatus for preparing an implantation space in the human spine to receive an insert between adjacent vertebral bodies, comprising:

a handle;

a shaft operably connected to said handle,

a drive mechanism adapted to be operably connected to a power source; and

an abrading element operably coupled to a distal end of said shaft for movement by said drive mechanism, said abrading element being moved in a direction different than which said shaft is moved, said abrading element having at least one abrading surface selected to create a predetermined surface contour of the adjacent vertebral bodies as said abrading element is moved by said drive mechanism.

127. (Newly Added) The apparatus of claim 126, wherein said abrading surface includes teeth formed thereon to cooperatively engage said drive mechanism, said drive mechanism and said teeth being configured such that said abrading surface is rotated by said drive mechanism.

128. (Newly Added) The apparatus of claim 126, further comprising a second abrading surface.

129. (Newly Added) The apparatus of claim 128, wherein said abrading surfaces are rotated in opposite directions by said drive mechanism.

130. (Newly Added) The apparatus of claim 128, wherein said abrading element has at least a top abrading surface and a bottom abrading surface.

131. (Newly Added) The apparatus of claim 128, wherein said abrading surfaces are outwardly facing, and said abrading surfaces are inclined relative to one another.

132. (Newly Added) The apparatus of claim 126, wherein said abrading element includes at least two abrading surfaces for simultaneously creating predetermined surface contours on the respective end plates of the adjacent vertebral bodies.

133. (Newly Added) The apparatus of claim 126, wherein said abrading element includes a non-abrading surface formed on a side of said abrading element opposite said abrading surface, said non-abrading surface being configured to allow a surgeon to increase the pressure of said abrading surface against one of the adjacent vertebral bodies.

134. (Newly Added) The apparatus of claim 126, wherein said abrading surfaces is convex.

135. (Newly Added) The apparatus of claim 126, wherein said abrading element has a front surface and is tapered outwardly from said front surface toward said handle.

136. (Newly Added) The apparatus of claim 126, wherein said abrading element includes a leading edge configured as a bone cutting surface.

137. (Newly Added) The apparatus of claim 126, wherein said abrading surface has a width, said width being adapted to substantially match the width of the nucleus pulposus of a disc space, in which it is inserted.

138. (Newly Added) The apparatus of claim 126, wherein said abrading surface is substantially planar.

139. (Newly Added) The apparatus of claim 126, wherein said abrading surface is configured such that it is generally parallel to said surface contour formed in the vertebral body

as said abrading element is moved by said drive mechanism.

140. (Newly Added) The apparatus of claim 126, wherein said abrading element is detachable from said shaft.

141. (Newly Added) The apparatus of claim 126, wherein said abrading element is fixedly connected to said shaft.

142. (Newly Added) The apparatus of claim 126 further comprising a mechanism that couples said abrading element to said drive mechanism.

143. (Newly Added) The apparatus of claim 126, wherein said drive mechanism is disposed at least in part in said handle.

144. (Newly Added) The apparatus of claim 126, wherein said power source is disposed at least in part in said handle.

145. (Newly Added) The apparatus of claim 126, wherein said abrading element is driven in a reciprocating, arcuate motion by said drive mechanism.

146. (Newly Added) The apparatus of claim 126, wherein said abrading element includes a wheel having cutter teeth along its perimeter.

147. (Newly Added) The apparatus of claim 126, wherein said drive mechanism is adapted to produce a rotary movement of said abrading element about an axis generally perpendicular to a longitudinal axis of said shaft and about a general plane of a vertebral end plate of at least one of the adjacent vertebral bodies.

148. (Newly Added) The apparatus of claim 126, wherein said drive mechanism is adapted to produce one of an oscillating rotation and a vibratory motion of the abrading element.

149. (Newly Added) The apparatus of claim 126, wherein said drive mechanism is adapted to produce an oscillating rotation of the abrading element, wherein said oscillating rotation is from 20° to 45° degree. to either side of the longitudinal axis of said shaft.

150. (Newly Added) The apparatus of claim 126, wherein said drive mechanism comprises a gas-driven turbine powered by a source of compressed gas.

151. (Newly Added) The apparatus of claim 126, wherein said drive mechanism is operable to move said abrading element in at least two degrees of freedom.

152. (Newly Added) The apparatus of claim 126, further comprising a suction mechanism for removing bits of debris created by said abrading surface of said abrading element.

153. (Newly Added) The apparatus of claim 126, further comprising an irrigation channel configured through said shaft for delivering irrigation fluid to the surgical site.

154. (Newly Added) The apparatus of claim 126, further comprising at least one stop member adapted to limit the depth of travel of said abrading element into the spine.

155. (Newly Added) The apparatus of claim 126, further comprising an insert adapted to be sized and shaped to match the space formed in the spine by said abrading element.